

ASSOCIATE ENGINEER

DEFINITION:

Under general supervision, directs and performs complex or difficult civil engineering work; performs related work as required.

CLASS CHARACTERISTICS:

This class is the full advanced journey level class in the professional civil engineering series. Incumbents perform difficult and complex civil engineering work which requires the exercise of considerable independent judgment, particularly when serving as a project leader on civil engineering projects. The work may also include day-to-day lead direction, supervision, and training of sub-professional and less experienced engineering staff.

IMPORTANT AND ESSENTIAL JOB FUNCTIONS:

1. Conducts and directs comprehensive civil engineering studies and projects related to the design, construction, modification and enlargement of structures, utility facilities, roadways, site improvements and various public works projects.
2. Prepares and reviews plans, specifications, bids, contracts and reports.
3. Prepares economic, feasibility and environmental studies on proposed or existing facilities.
4. Acts as project manager on assigned construction projects, administering the contracts and ensuring that the projects are completed within the parameters specified by the specifications and commonly accepted industry standards.
5. Reviews plans submitted by developers, architects and contractors for design integrity, technical expertise and conformance with standards.
6. Confers with other City staff and consultants to coordinate projects and activities.
7. Assists in the long-range planning of City facilities and public works projects.
8. Uses a computer to solve engineering problems.
9. Makes computations and maintains accurate records.
10. Prepares complete reports including text, charts, computations, conclusions and recommendations. Prepares periodic and special reports.

ASSOCIATE ENGINEER

IMPORTANT AND ESSENTIAL JOB FUNCTIONS: (Continued)

11. Represents the City in contacts with governmental and regulatory agencies, professional and community groups and others.
12. Direct and evaluate the work of lower-level engineers and technical support staff as assigned.

QUALIFICATIONS:

Knowledge of:

1. Civil engineering principles and practices related to the planning, design and construction of various public works projects.
2. Basic data processing principles as related to the solution of engineering problems.
3. Engineering mathematics and statistical analysis techniques.
4. Construction methods and practices.
5. State and federal regulations, construction codes and safety practices pertaining to the work.
6. Basic project management and supervisory principles.

Skill in:

1. Applying engineering principles and techniques to the solution of complex engineering problems.
2. Administering and coordinating varied contract projects and activities.
3. Evaluating alternative courses of action and reaching sound conclusions within established guidelines.
4. Making accurate calculations and preparing accurate reports and clear and concise written materials.
5. Reviewing and interpreting plans, specifications, bids and contracts.
6. Developing and maintaining effective working relationships with those contacted in the course of the work and effectively acting as a representative of the City.

ASSOCIATE ENGINEER

JOB REQUIREMENTS:

1. Graduation from a four year accredited college or university with major course work in civil engineering.
2. Possession of a California Engineer-in-Training certificate.
3. Four years of professional-level civil engineering experience with a local government agency or private engineering firm performing contract work for local government agencies.
4. Registration as a Professional Engineer in the State of California is desired, but not required.
5. Must possess a valid California driver's license in compliance with adopted City driving standards.
6. Must have sufficient mobility to inspect construction projects in the field.
7. Must be willing to work out of doors in various weather conditions.

OTHER QUALIFICATIONS:

1. An advanced degree in an accredited civil engineering curriculum may be substituted for one year of the required experience.

MACHINES/TOOLS/EQUIPMENT UTILIZED

1. Various engineering measuring tools and equipment
2. Automobile
3. Reports, forms, pencils and pens
4. Maps, plans, and blueprints
5. Computer monitor, keyboard and printer
6. Copy and Fax machines
7. Calculator
8. Telephone

PHYSICAL DEMANDS:

1. Mobility
2. Walking
3. Speaking/hearing
4. Driving
5. Seeing
6. Sitting/standing
7. Speed in meeting deadlines
8. Manual dexterity
9. Lifting up to 20 lbs.

ASSOCIATE ENGINEER

ENVIRONMENTAL AND ATMOSPHERIC CONDITIONS:

Office Conditions:

1. Indoors: normal office conditions, 80% of the time
Travel: varying conditions, 20% of the time
2. Noise level: conducive to office setting
3. Lighting: conducive to office setting
4. Flooring: low level carpeting
5. Ventilation: provided by central air conditioning
6. Dust: normal, indoor levels

Field Conditions:

1. Outdoors: varying weather conditions
2. Noise level: varying low to high equipment noise
3. Flooring: grass, dirt, rock, asphalt, etc.
4. Dust: normal outdoor, to high outdoor levels associated with construction activities
5. Hazards: Investigating/surveying developed and undeveloped sites under various stages of construction